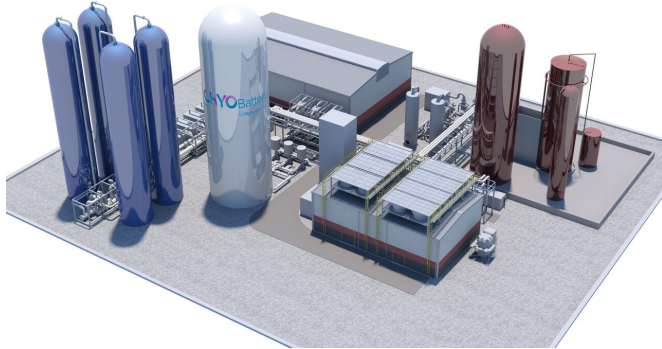


Plans in place to build the UK's first commercial cryogenic energy storage facility

23 October 2019, by Bob Yirka



Credit: Highview Power

Energy storage company Highview Power has announced its intention to build a cryogenic energy storage facility in the north of England—a first for the U.K. The project calls for converting a decommissioned thermal power plant into a 50 MW/250 MWh capacity CRYOBattery capable of supporting approximately 25,000 homes for an entire day.

The cryogenic energy storage facility will store energy created via renewable resources, such as wind farms. It works by compressing air to the point that it liquefies. Once compressed, it is stored until needed. Then the [liquid air](#) is heated using heat emitted when the air is compressed, and allowed to decompress, which provides the power to drive a turbine. The technology has gained the support of the U.K. government, which is in the process of trying to reduce [carbon emissions](#) dramatically. Researchers note that the technique is far cleaner than battery systems—no [toxic chemicals](#) are involved, and no emissions are released—and it is 100 percent carbon-free. It also does not need water to work. Compressed air can

also be stored longer than energy stored in a battery—up to weeks at a time.

In its [press release](#), representatives for Highview noted that the process is already well established—it has been used to store and compress natural gas. CEO Javier Cavarda told attendees at the BloombergNEF summit recently that the [new plant](#) will use technology developed at test facilities in Slough and Manchester. He said that the system is expected to provide services to consumers that will bolster stability and reliability to the local grid. He also noted that the new facility will provide other services, as well, such as frequency management and market arbitrage. Cavarda has also made it clear that the company plans to build multiple cryogenic energy storage facilities across the U.K. as part of an effort to work with the government toward a carbon-free future. He noted that Highview Power is also in talks with officials in other countries, such as Spain, South Africa and several in the Middle East.

More information:

www.highviewpower.com/news_ann...gest-storage-system/

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